PROJECT FACT SHEET

Status:

CONTRACT TITLE: Innovative Drilling Completion System

DATE REVIEWED: 07/19/91 **DATE REVISED:** 07/15/91

OBJECTIVE: Demonstrate an innovative drilling-completion system to help alleviate the steam override problem in an active steamflood area in a typical California heavy oil field; and demonstrate that the well can be used as a steamflood injector and a cyclic steam producer.

CONTRACT NO:
DE-AC22-89BC14203
B & R CODE: AC1505100

CONTRACTOR:
Petrolphysics

ADDR: 2101 Third Street
San Francisco CA 94107

CONTRACT PERFORMANCE PERIOD:
09/26/89 to 02/28/91
PROGRAM: Hvy Oil
RESEARCH AREA:
Novel Technology

CONTRACT PROJECT MANAGER:

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DOE PROJECT MANAGER
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PROJECT SITE
Midway-Sunset Field
UNOCAL Bremer Lease
Well RI-53, Sec 16,T31S R22E

SCHEDULE MILESTONES:

Status report on the geological-reservoir-production history of the well and lease where the laterals are to be drilled.	03/90
Status report on the drilling-completion of the well.	08/90
Status report on the steam injection-production cycle.	10/90
Final technical report which presents a summary of all work done, showing detailed costs and conclusions reached.	04/91

CONTR. FUNDING	FUNDING (1000'S)	DOE	OTHER	CONTRACTOR	TOTAL
	PRIOR FISCAL YRS	276.0	0.0	26.0	302.0
	FISCAL YR 1991	0.0	0.0	0.0	0.0
	FUTURE FUNDS	0.0	0.0	0.0	0.0
	TOTAL EST'D FUNDS	276.0	0.0	26.0	302.0

PROJECT DESCRIPTION: To demonstrate and innovative drilling-completion system can help alleviate the steam override problem in an active steamflood area in a typical California heavy oil field, and to demonstrate that the well can be used either a steamflood injector or a cyclic steam producer.

PRESENT STATUS: The project has been completed and a Final report received.

The revised report was received at BPO in April, 1991.

ACCOMPLISHMENTS: The plans were for a 1-year program in three phases. PHASE I was for several months starting on September 26. It consisted of picking the drilling site and preparing the topical report on the geological reservoir production history of the lease. During this phase, the subcontracts were awarded to the subcontractors. A topical report entitled "Well Selection and Geological Review" was completed in March, 1990. PHASE II was for about two months, starting about April 1. It consisted of drilling and completing the (1) vertical well by UNOCAL and (2) four radials by Petrolphysics. This was accomplished during the period April 9 through April 20. A report entitled 'Topical Report for Task 2 "Drill and Complete Well" ' was completed in July. PHASE III consisted primarily of establishing a baseline production rate for the well, injecting steam for about a month, and then establishing the production response for about three months. The injection lasted 13 days with 1320 barrels of steam per day being injected for a cumulative of 17,120 barrels of steam, and estimated 5,700 million BTUs. The back-flow cycle continues after the end of the contract on 9/25/90. Completed 11/90 was topical report "Monitor Steam Injection and Well Productivity".

BACKGROUND: A basic problem with steam injection processes is that injected steam overrides the oil saturated sands, resulting in poor oil recovery. One method to lesson this steam override is to inject steam into a horizontal/lateral well. Another is to inject steam in a vertical well and produce from a horizontal/lateral well. The purpose of this research is to show that a horizontal/lateral well is useful both as a steam flood injector and a cyclic steam producer. An existing vertical well on a lease in the Midway-Sunset Field of UNOCAL was used for this demonstration.